<u>Giardia lamblia</u>

- transmitted in a contaminated water supply

- the first intestinal microorganism that observed by Anton Van Leeuwenhoek

- the only protozoan on the duodenum and gegenum or the small intestine

can attach firmly in the human intestinal wall

- o Flagella
- Ingestion of cyst
- o Gardiasis duedenalis/intestinalis

Manifestation: (1) diarrhea that persist for 4 weeks, (2) Steatorrhea (fatty stool, excessive flatus/fart and the breath smells like H2S

- Diagnosis: thru identification of cyst in **OteSa** feces; get a stool sample, observe inter **3 Enizopeda**/Amoeba micro, if there is cyst (10)

- A <u>string test</u> – patient will take gelatin capsule, inside the capsule there is a rubber bag, where there is also the attachment of 140cm string

<u>**Treatment</u>**: Metronidazole (quinacrine hydrochloride)</u>

- Trichomonas vaginalis
 - Undulating membrane
 - Transmitted by sexual intercourse and toilet facilities or towels
 - Trichomoniasis yellowish-greenish liquid

- for female, green to yellow liquid and have a burning sensation
- do not have a cyst stage
- transmission is host-host

<u>2. Microspora</u> – lack mitochondria and microtubules, obligate intracellular parasites

 Chronic diarrhea and keratoconjunctivitis (causes blurring of vision)
 - infects immuno compromise patients (AIDS patient)

Manifestation: Asymptonatic Treatmene Metronidazole

- Move by extending its pseudopods (lobe-like projections, false feet)
- Entamoeba histolytica

- most common protozoan in the large intestine and only the pathogenic found in the large intestine

- causes severe dysentery (diarrhea with blood and mucous)

<u>**Transmission**</u> is through the ingestion of the cyst; cyst will multiply and become a trophozoites and will reside on the epithelial cell walls of the large intestine

<u>**Treatment:**</u> Metronidazole + loquinol

- <u>P. Malariae</u>/Quartan Malaria
 - release merozoites every 72 hours
 - directly enter the liver cells to produce merozoites

Treatment for Malaria:

- Quinine (chloroquine, mefloquine, primaquine) these are use as prophylactic drug to prevent infection.



2 hosts: (1) Female Anopheles Mosquito, (2)Humans and other animals

Asexual Reproduction – Humans

- Anopheles mosquito bite human and release sporozoites in the blood stream and go to the liver cells
- (2) Inside the liver it will undergo Schizogony to produce merozoites
- (3) Once merozoites are produce in the liver cell, it will continue to multiply and destroy the RBC

- (4) Merozoites develops into ring stage in RBC
- (5) Inside the RBC it will continue to grow and divide to produce more merozoites
- (6) Once the merozoites are produced it will break open and release merozoites to destroy the RBC and the other merozoites will develop into gametocyte

Sexual Reproduction

- (7) Anopheles mosquito will get the gametocyte by biting the infected patient with malaria
- (8) Once the mosquito gets the gametocyte it will undergo union of different gametocyte to produce zygote
- (9) The zygote has sportzoites inside; the zygote with undergo sporogony to produce
 (9) The zygote has sporozoites inside; the zygote with undergo sporogony to produce
 (9) The zygote has sporozoites, sporozoites will migrate to the salivary glands of mosquito and bite another
 (9) The zygote has sporozoites.



<u>Exo-erthrocytic Cycle</u>
 the infection of the sporozoites in the liver cell to produce merozoites

LIFE CYCLE OF PLASMODIUM